

## AMENDMENTS TO THE CLAIMS

1. (currently amended) A catalyst system for olefin polymerization comprising an organic transition metal compound and, as, a cocatalyst, comprising an ionic compound made up of anions of the formula (Ia),



where

the radicals  $\text{R}^1$  are identical or different and are each, independently of one another, a radical  $\text{R}^2\text{R}^3(\text{CF}_3)_2$ , each  $\text{C}(\text{CF}_3)_3$ ;

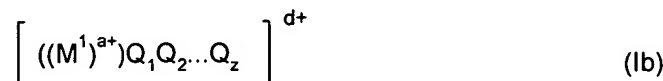
$\text{R}^2$ —is a carbon or silicon atom and

$\text{R}^3$ —is hydrogen,  $\text{C}_1\text{-C}_{20}$ -alkyl,  $\text{C}_1\text{-C}_{20}$ -fluoroalkyl,  $\text{C}_6\text{-C}_{20}$ -aryl,  $\text{C}_6\text{-C}_{20}$ -fluoroaryl,  $\text{C}_7\text{-C}_{40}$ -arylalkyl,  $\text{C}_7\text{-C}_{40}$ -fluoroarylalkyl,  $\text{C}_7\text{-C}_{40}$ -alkylaryl,  $\text{C}_7\text{-C}_{40}$ -fluoroalkylaryl or an  $\text{SiR}^4_3$ -group, where

$\text{R}^4$ —may be identical or different and is each  $\text{C}_1\text{-C}_{20}$ -alkyl,  $\text{C}_1\text{-C}_{20}$ -fluoroalkyl,  $\text{C}_6\text{-C}_{20}$ -aryl,  $\text{C}_6\text{-C}_{20}$ -fluoroaryl,  $\text{C}_7\text{-C}_{40}$ -arylalkyl,  $\text{C}_7\text{-C}_{40}$ -fluoroarylalkyl,  $\text{C}_7\text{-C}_{40}$ -alkylaryl or  $\text{C}_7\text{-C}_{40}$ -fluoroalkylaryl,

and Lewis-acid cations or Brönsted acids as cations.

2. (currently amended) ~~A~~The catalyst system as claimed in claim 1, wherein the cocatalyst comprises, as Lewis-acid cations, cations of the formula (Ib),



where

$\text{M}^1$  is an element of groups 1 to 16 of the Periodic Table of the Elements,

Q<sub>1</sub> to Q<sub>z</sub> are singly negatively charged groups ~~such as~~ comprising C<sub>1</sub>-C<sub>28</sub>-alkyl, C<sub>6</sub>-C<sub>15</sub>-aryl, alkylaryl, arylalkyl, haloalkyl, haloaryl each having from 6 to 20 carbon atoms in the aryl radical and from 1 to 28 carbon atoms in the alkyl radical, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl which may bear C<sub>1</sub>-C<sub>10</sub>-alkyl groups as substituents, halogen, C<sub>1</sub>-C<sub>28</sub>-alkoxy, C<sub>6</sub>-C<sub>15</sub>-aryloxy, silyl or mercaptyl groups;

a is an integer from 1 to 6 ~~and~~;

z is an integer from 0 to 5; and

d corresponds to the difference a-z, but d is greater than or equal to 1.

3. (currently amended) ~~A~~The catalyst system as claimed in claim 1, wherein the cocatalyst comprises, as cations, Brönsted acids of the formula (Ic);



where

A is an element of group 15 of the Periodic Table of the Elements and

R<sup>5</sup> may be identical or different and is each, independently of one another, C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>1</sub>-C<sub>20</sub>-haloalkyl, C<sub>1</sub>-C<sub>10</sub>-alkoxyl C<sub>6</sub>-C<sub>20</sub>-aryl, C<sub>6</sub>-C<sub>20</sub>-haloaryl, C<sub>6</sub>-C<sub>20</sub>-aryloxy, C<sub>7</sub>-C<sub>40</sub>-arylalkyl, C<sub>7</sub>-C<sub>40</sub>-haloarylalkyl, C<sub>7</sub>-C<sub>40</sub>-alkylaryl or C<sub>7</sub>-C<sub>40</sub>-haloalkylaryl.

4. (canceled).
5. (currently amended) ~~A~~The catalyst system as claimed in ~~any of claims 1 to 4~~claim 1 which further comprises an organometallic compound.
6. (currently amended) ~~A~~The catalyst system as claimed in ~~any of claims 1 to 5~~claim 1 which further comprises an inorganic or organic support.
7. (currently amended) A process for preparing a catalyst system ~~as claimed in claim 6,~~  
which comprises

an organic transition metal compound; a cocatalyst comprising an ionic compound made up of anions of the formula (Ia):



where the radicals R<sup>1</sup> are each C(CF<sub>3</sub>)<sub>3</sub>;

Lewis-acid cations or Brönsted acids as cations; and

an inorganic or organic support; the process comprising:

firstly bringing the support into contact with an organometallic compound and adding the organic transition metal compound and the cocatalyst to ~~the~~a reaction product.

8. (currently amended) A catalyst system for the polymerization of olefins comprising:

an organic transition metal compound; a cocatalyst comprising an ionic compound made up of anions of the formula (Ia):



where

the radicals R<sup>1</sup> are each C(CF<sub>3</sub>)<sub>3</sub>;

Lewis-acid cations or Brönsted acids as cations; and

an inorganic or organic support

~~which is obtainable~~obtained as set forth in claim 7~~by a process comprising firstly bringing the support into contact with an organometallic compound and adding the organic transition metal compound and the cocatalyst to a reaction product .~~

9. (currently amended) A process ~~for the polymerization of olefins~~comprising polymerizing olefins with ~~in which a catalyst system as set forth in any of claims 1 to 8 is used~~comprising:

an organic transition metal compound; a cocatalyst comprising an ionic compound made up of anions of the formula (Ia):



where the radicals R<sup>1</sup> are each C(CF<sub>3</sub>)<sub>3</sub>; and

Lewis-acid cations or Brönsted acids as cations.